

In the claims: The claims are as follows.

1. (Currently amended) A method, comprising:

a sending device computing error detection bits in such a way that ~~based on both~~ protected bits to be wirelessly communicated over a protected channel and also other bits to be wirelessly communicated over another channel are both used to determine the values of the error detection bits, so as to enable detecting errors in transmission of the protected bits or the other bits using the error detection bits; and

the sending device transmitting the error detection bits with the protected bits only on the protected channel and transmitting the other bits only on the other channel.

2. (Previously presented) A method as in claim 1, further comprising:

a receiving device receiving the detection bits and the protected bits on the protected channel and the other bits on the other channel; and

the receiving device detecting errors based on the protected bits and the other bits using the error detection bits.

3. (Previously presented) A method as in claim 2, wherein bits on a channel are wirelessly communicated in frames, and the method further comprises the receiving device discarding at least some bits of a frame without adding them to a buffer for soft-combining if an error is detected in the other bits, and asking the sending device to retransmit the frame.

4. (Previously presented) A method as in claim 3, wherein the other bits comprise bits indicating a transport format combination indicator for a data channel, and the bits that are

discarded in case of detecting an error are the bits conveyed by the data channel.

5. (Previously presented) A method as in claim 1, wherein the other bits are conveyed by a control channel used to decode a further channel.

6. (Previously presented) A method as in claim 5, wherein the other bits include bits indicating a transport format combination indicator, and the further channel is a traffic channel.

7. (Previously presented) A method as in claim 1, wherein the channel used to convey the other bits and the protected channel are both control channels used to decode a further channel.

8. (Previously presented) A method as in claim 7, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.

9. (Original) A method as in claim 7, wherein the protected channel is time multiplexed with the further channel.

10. (Original) A method as in claim 7, wherein the protected channel is code multiplexed with the further channel.

11. (Original) A method as in claim 1, wherein the protected channel is a traffic channel.

12. (Previously presented) A method as in claim 11, wherein the other bits are conveyed by a control channel used to decode a further channel, and the protected channel is better protected than the further channel.

13. (Previously presented) A method as in claim 1, wherein the

error detection bits are computed using a cyclic redundancy check code.

14. (Original) A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a telecommunication device, wherein said computer program code includes instructions for performing the method of claim 1.

15. (Original) A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a telecommunication device, wherein said computer program code includes instructions for performing the method of claim 2.

16. (Currently amended) An apparatus, comprising:

means for computing error detection bits ~~based on both in~~
such a way that protected bits to be wirelessly communicated over
~~a protected channel and also other bits to be wirelessly~~
~~communicated over another channel~~are both used to determine the
values of the error detection bits, so as to enable detecting
errors in transmission of the protected bit or the other bits
using the error detection bits, and

means for transmitting the error detection bits with the protected bits only on ~~the~~ a protected channel and also for transmitting the other bits only on ~~the other~~ another channel.

17. (Original) An apparatus as in claim 16, wherein the device is a user equipment device.

18. (Original) An apparatus as in claim 16, wherein the device is an access point of a telecommunications network.

19. (Previously presented) An apparatus as in claim 16, wherein the other bits are conveyed by a control channel used to decode a further channel.

20. (Previously presented) An apparatus as in claim 19, wherein the other bits include bits indicating a transport format combination indicator, and the further channel is a traffic channel.

21. (Previously presented) An apparatus as in claim 16, wherein the channel used to convey the other bits and the protected channel are both control channels used to decode a further channel.

22. (Previously presented) An apparatus as in claim 21, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.

23. (Previously presented) An apparatus as in claim 21, wherein the protected channel is time multiplexed with the further channel.

24. (Previously presented) An apparatus as in claim 21, wherein the protected channel is code multiplexed with the further channel.

25. (Original) An apparatus as in claim 16, wherein the protected channel is a traffic channel.

26. (Previously presented) An apparatus as in claim 25, wherein the other bits are conveyed by a control channel used to decode a further channel, and the protected channel is better protected than the further channel.

27. (Previously presented) An apparatus as in claim 16, wherein the error detection bits are computed using a cyclic redundancy check code.

28. (Currently amended) An apparatus, comprising:

means for receiving protected bits and error detection bits wirelessly communicated only over a protected channel and for receiving other bits wirelessly transmitted only on another channel; and

means for detecting errors in the received protected bits and also in the received other bits based on the error detection bits, ~~included in the protected bits~~ taking into account that the error detection bits are computed in such a way that the protected bits and also the other bits are both used to determine the values of the error detection bits, so as to enable detecting errors in transmission of the protected bits or the other bits using the error detection bits.

29. (Original) An apparatus as in claim 28, wherein the device is an access point of a telecommunications network.

30. (Original) An apparatus as in claim 28, wherein the device is a user equipment device.

31. (Previously presented) An apparatus as in claim 28, wherein bits on a channel are wirelessly communicated in frames, and the apparatus further comprises means for discarding at least some bits of a frame if an error is detected in the other bits communicated on the other channel, and for discarding the bits without adding them to a buffer for soft-combining, and for requesting retransmission of the discarded bits.

32. (Previously presented) An apparatus as in claim 31, wherein

the other bits comprise bits indicating a transport format combination indicator for a data channel, and the bits that are discarded in case of detecting an error are the bits conveyed by the data channel.

33. (Original) A system, comprising a first wireless telecommunications device including an apparatus as in claim 16, and also a second wireless telecommunications device.

34. (Original) A system, comprising a first wireless telecommunications device, and further comprising a second wireless telecommunications device including an apparatus as in claim 28.

35. (Currently amended) A method, comprising:

using both protected symbols ~~for transmission over a protected channel~~ and unprotected symbols ~~for transmission over an unprotected channel~~ in providing error detection symbols ~~for transmission over only said protected channel~~, so as to enable detecting errors in transmission of the protected symbols or the unprotected symbols using the error detection symbols; and

sending to a receiver said error detection symbols along with said protected symbols only on ~~said a~~ a protected channel and said unprotected symbols only on ~~said an~~ an unprotected channel.

36. (Currently amended) An apparatus, comprising:

means for ~~providing~~ computing values of error detection symbols ~~for transmission only over a protected channel~~ using both protected symbols ~~for transmission only over the protected channel~~ and unprotected symbols ~~for transmission only over an unprotected channel~~ so as to enable detecting errors in transmission of the protected symbols or the unprotected symbols using the error detection symbols; and

means for sending to a receiver said error detection symbols along with said protected symbols only on ~~said a~~ protected channel and said unprotected symbols only on ~~said an~~ unprotected channel.

37. (Currently amended) A method as in claim 35, wherein the other ~~bits~~ symbols convey a transport format combination indicator, and the protected channel is an outband signaling channel.

38. (Currently amended) An apparatus as in claim 36, wherein the other ~~bits~~ symbols convey a transport format combination indicator, and the protected channel is an outband signaling channel.

39. (Currently amended) An apparatus, comprising:

a cyclic redundancy check calculator, for providing error detection symbols ~~for transmission only over a protected channel~~ using both protected symbols ~~for transmission over only the protected channel~~ and unprotected symbols ~~for transmission over only an unprotected channel~~, so as to enable detecting errors in transmission of the protected symbols or the unprotected symbols using the error detection symbols; and

a transport channel multiplexer and physical channel mapper, for sending to a receiver said error detection symbols along with said protected symbols on ~~said a~~ protected channel and said unprotected symbols on ~~said an~~ unprotected channel.

40. (Previously presented) An apparatus as in claim 39, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.

41. (Currently amended) A method, comprising:

receiving protected bits and error detection bits only on a protected channel and other bits only on another channel; and

detecting errors in the protected bits and the other bits based on the error detection bits—~~included only in the protected bits~~, taking into account that the error detection bits are computed in such a way that the protected bits and also the other bits are both used to determine the values of the error detection bits, so as to enable detecting errors in transmission of the protected bits or the other bits using the error detection bits.

42. (Previously presented) A method as in claim 41, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.

43. (Currently amended) An apparatus, comprising:

means for receiving protected bits and error detection bits only on a protected channel and other bits only on another channel; and

means for detecting errors in the protected bits and the other bits based on the error detection bits—~~included only in the protected bits~~, taking into account that the error detection bits are computed in such a way that the protected bits and also the other bits are both used to determine the values of the error detection bits, so as to enable detecting errors in transmission of the protected bits or the other bits.

44. (Previously presented) An apparatus as in claim 43, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.

45. (Currently amended) An apparatus, comprising:

a transport channel multiplexer and physical channel mapper, for receiving protected bits and error detection bits only on a protected channel and other bits only on another channel; and

a cyclic redundancy check calculator, for detecting errors in the protected bits and the other bits based on the error detection bits ~~included only in the protected bits~~, taking into account that the error detection bits are computed in such a way that the protected bits and also the other bits are both used to determine the values of the error detection bits, so as to enable detecting errors in transmission of the protected bits or the other bits.

46. (Previously presented) An apparatus as in claim 45, wherein the other bits convey a transport format combination indicator, and the protected channel is an outband signaling channel.